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SECTION

Industrial Water

UTAH STATE WATER PLAN - WEBER RIVER BASIN PLAN

Although the Weber River Basin has had a strong economic base, the area is currently in a state of transition from an economy driven by large military installations to one driven by private investment.

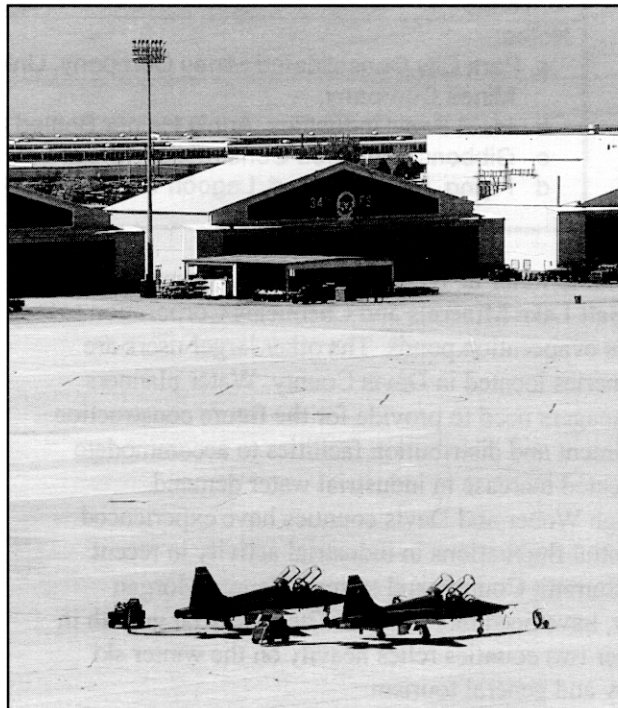
18.1 Introduction

This section of the *Weber River Basin Plan* presents industrial water use data and information taken from several studies on municipal and industrial (M&I) water use. Current and projected water use is presented for most of the major public operations and private industries.

18.2 Background

The Weber River Basin has historically enjoyed a robust and growing economy. The sustained growth in agricultural businesses and military installations over the years provided tens-of-thousands of jobs and related growth in other businesses. However, the closure of the Defense Depot at Ogden (DDO) and downsizing of Hill Air Force Base (HAFB) have negatively impacted the overall local economy and growth of industrial business activity.

To effectively manage the recent change in economic climate, local business organizations are in the process of attracting new business opportunities to the area. As an example, various business development organizations have successfully financed the reconstruction of major portions of the business district in Ogden. Existing industrial businesses in the area have also expanded due to an increasing demand for residential housing. Of particular importance are industries associated with oil refineries, commercial and residential construction, the processing of rock products, various mining operations, and chemical and mineral processing plants.



Hill Air Force Base

In the immediate future, industrial water demand is expected to remain constant or show modest declines. In the long term, the demand is expected to increase at a rate approximated by the projected growth in population.

18.3 Industrial Water Use

Table 18-1 shows a breakdown of estimated industrial water uses in 1992, with a total of 25,900 acre-feet. This includes potable and non-potable water supplies. The largest component is 19,900 acre-feet of

**Table 18-1
INDUSTRIAL WATER USE BY COUNTY**

County	Potable	Non-Potable (acre-feet)	Total Industrial
Summit			
Self-Supplied Industries ^a	0	15	15
Public Community Systems	60	0	60
Morgan			
Self-Supplied Industries ^b	827	0	827
Public Community Systems	13	0	13
Weber			
Self-Supplied Industries ^c	312	19,848	20,160
Public Community Systems	1,302	0	1,302
Davis			
Self-Supplied Industries ^d	1,882	292	2,174
Public Community Systems	1,307	0	1,307
Totals	5,703	20,155	25,858

Notes:

- a Park City Consolidated Mines Company, Union Pacific Resources, United Park City Mines Company.
- b Ideal Basic Industries, Annie Heiner Bottled Spring Water.
- c Gibbons and Reed Construction, Great Salt Lake Minerals and Chemicals Corp.
- d Flying J Incorporated, Lagoon Corp., Jack B. Parsons Co., Phillips 66.

non-potable water in Weber County. This is used by Great Salt Lake Minerals and Chemicals Corporation to flush its evaporation ponds. The other larger users are oil refineries located in Davis County. Water planners and managers need to provide for the future construction of treatment and distribution facilities to accommodate an expected increase in industrial water demand. Although Weber and Davis counties have experienced substantial fluctuations in industrial activity in recent years, Summit County, and to some degree Morgan County, have been more stable. The industrial growth in the latter two counties relies heavily on the winter ski industry and general tourism.

Projected industrial water use data are presented in Table 18-2. In contrast to residential and commercial water users, which grow in proportion with population, future industrial use is impossible to predict. If industrial water use grows at the same rate as the population, by the year 2020 it will increase to 42,200 acre-feet.

18.3.1 Water Use By Major Industries

The major industrial water users include two refineries operated by Big West Oil Company (Flying J, Inc.) and Phillips 66 Company at West Bountiful, rock product facilities operated by Jack B. Parsons Companies at South Weber, cement processing plant operated by Ideal Basic Industries at Croydon, various

mining operations by Park City Consolidated Mines Company and United Park City Mines Inc. within the Snyderville Basin, miscellaneous railroad yard operations by Union Pacific Resources at Ogden, metal finishing and processing by Western Zirconium west of Ogden and various salt and trace mineral/ chemical processing operations by Great Salt Lake Minerals and Chemicals Corporation. In addition, two major plant facilities have located in the Weber County Industrial Park northwest of Ogden.

18.3.2 Hydroelectric Power Generation

Hydroelectric power generation plants require operational hydraulic head and significant volumes of water. This is a non-consumptive use and the water can be used downstream. Currently, five major hydroelectric power generation facilities operate in the basin. These are described in Table 18-3. All of the hydroelectric plants are operated based on water demands within existing river systems to optimize seasonal water storage within existing reservoirs. ❖

Table 18-2 PROJECTED INDUSTRIAL WATER USE BY COUNTY^a		
County	1992 (acre-feet)	2020
Summit	100	200
Morgan	800	1,400
Weber	21,500	34,600
Davis	3,500	6,000
Totals	25,900	42,200
a Includes potable and non-potable water use.		

Table 18-3 SUMMARY OF BASIN POWER PLANTS			
Facility	Operating Agency	Location	Average Annual Power Generation (kw-hr/year)
Gateway	Weber Basin WCD	Weber River at Gateway Diversion	6,500,000
Wanship	Weber Basin WCD	Weber River at Wanship Dam	4,900,000
Pioneer	Utah Power & Light	Ogden River at Ogden Canyon	a
Echo	Bountiful City	Weber River at Echo Dam	8,200,000
Weber	Utah Power & Light	Weber River at Mouth of Canyon	a
Pineview	Bountiful City	Ogden River at Pineview Dam	7,200,000
a Information declined by operating agency.			